

What is claimed is:

1. A method of disposing a baroreceptor activation device on a carotid sinus of a patient, the carotid sinus having a circumference, the method comprising the steps of:  
providing a baroreceptor activation device having a base and a plurality of electrodes; and

positioning the device proximate the carotid sinus such that the base extends around at least a substantial portion of the circumference of the carotid sinus and the electrodes extend around the carotid sinus less than the base.

2. A method as in claim 1, wherein the step of positioning the device comprises wrapping the base around the carotid sinus.

3. A method as in claim 2, wherein the base is wrapped in a circular manner.

4. A method as in claim 2, wherein the base is wrapped in a helical manner.

5. A method as in claim 1, wherein the patient has an internal carotid artery, and wherein the step of positioning the device proximate the carotid sinus comprises wrapping the base around the internal carotid artery adjacent the carotid sinus.

6. A method as in claim 1, wherein the patient has an internal carotid artery and an external carotid artery, and wherein the step of positioning the device proximate

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the carotid sinus comprises wrapping the base around the internal and external carotid arteries adjacent the carotid sinus.

7. A method as in claim 1, wherein the patient has a common carotid artery, and wherein the step of positioning the device proximate the carotid sinus comprises wrapping the base around the common carotid artery adjacent the carotid sinus.

8. A method as in claim 1, wherein more than two electrodes are positioned proximate the carotid sinus.

9. A method as in claim 8, wherein the electrodes are spaced about at least a portion of the circumference of the carotid sinus.

10. A method as in claim 9, wherein the electrodes comprise electrode pads which are distributed about at least a portion of the circumference of the carotid sinus in a grid pattern.

11. A method as in claim 9, wherein the electrodes comprise elongate electrodes which extend adjacent to and parallel with each other about at least a portion of the circumference of the carotid sinus.

12. A method as in claim 11, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially parallel to the longitudinal axis.

13. A method as in claim 11, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially orthogonal to the longitudinal axis.

14. A method as in claim 11, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially oblique to the longitudinal axis.

15. A method as in claim 1, wherein the electrodes extend around less than 270° of the circumference of the carotid sinus.

16. A method as in claim 1, wherein the electrodes extend around less than 180° of the circumference of the carotid sinus.

17. A method as in claim 1, wherein the electrodes extend around less than 90° of the circumference of the carotid sinus.

18. A method as in claim 1, wherein the base has first and second ends, and wherein the base extends around the carotid sinus and the ends are joined.

19. A method as in claim 1, wherein the base has first and second ends, and wherein the ends of the base extend around at least half of the circumference of the carotid sinus and the base has sufficient structural integrity to grasp the carotid sinus.

20. A method of disposing a baroreceptor activation device on a carotid sinus of a patient, the carotid sinus having a circumference, the method comprising the steps of:

providing a baroreceptor activation device having a base and a plurality of electrodes; and

positioning the device proximate the carotid sinus such that the electrodes are spaced about at least a portion of the circumference of the carotid sinus.

21. A method as in claim 20, wherein more than two electrodes are spaced about at least a portion of the circumference of the carotid sinus.

22. A method as in claim 20, wherein the electrodes comprise electrode pads which are distributed about at least a portion of the circumference of the carotid sinus in a grid pattern.

23. A method as in claim 20, wherein the electrodes comprise elongate electrodes which extend adjacent to and parallel with each other about at least a portion of the circumference of the carotid sinus.

24. A method as in claim 23, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially parallel to the longitudinal axis.

25. A method as in claim 23, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially orthogonal to the longitudinal axis.

26. A method as in claim 23, wherein the carotid sinus has a longitudinal axis, and wherein the electrodes are positioned substantially oblique to the longitudinal axis.

27. A method as in claim 20, wherein the electrodes extend around less than 360° of the circumference of the carotid sinus.

28. A method as in claim 20, wherein the electrodes extend around less than 270° of the circumference of the carotid sinus.

29. A method as in claim 20, wherein the electrodes extend around less than 180° of the circumference of the carotid sinus.

30. A method as in claim 20, wherein the electrodes extend around less than 90° of the circumference of the carotid sinus.

31. A baroreceptor activation device for activating a baroreceptor in a carotid sinus of a patient, the carotid sinus having a circumference, the device comprising:

a base having a length sufficient to extend around at least a substantial portion of the circumference of the carotid sinus; and

one or more electrodes connected to the base, the electrodes having a length less than the length of the base.

32. A baroreceptor activation device as in claim 31, comprising more than two electrodes positioned adjacent each other on the base.

33. A baroreceptor activation device as in claim 32, wherein the electrodes comprise electrode pads which are distributed about at least a portion of the base in a grid pattern.

34. A baroreceptor activation device as in claim 33, wherein each pad defines two concentric electrodes.

35. A baroreceptor activation device as in claim 32, wherein the electrodes comprise elongate electrodes which extend adjacent to and parallel with each other on the base.

36. A baroreceptor activation device as in claim 35, wherein the electrodes are positioned substantially parallel to the length of the base.

37. A baroreceptor activation device as in claim 35, wherein the electrodes are positioned substantially orthogonal to the length of the base.

38. A baroreceptor activation device as in claim 32, wherein the electrodes comprise non-linear elongate electrodes which extend adjacent to each other on the base.

39. A baroreceptor activation device as in claim 31, wherein the electrodes extend less than 75% of the length of the base.

40. A baroreceptor activation device as in claim 31, wherein the electrodes extend less than 50% of the length of the base.

41. A baroreceptor activation device as in claim 31, wherein the electrodes extend less than 25% of the length of the base.

42. A baroreceptor activation device as in claim 31, wherein the base has first and second ends, and wherein the ends are adapted to be joined.

43. A baroreceptor activation device as in claim 31, wherein the base has sufficient structural integrity to grasp the carotid sinus.

44. A baroreceptor activation device for activating a baroreceptor in a carotid sinus of a patient, the device comprising at least one electrode having a non-linear shape along its length, the electrode assembly adapted to be placed on the carotid sinus such that the non-linear shaped length runs generally orthogonal to a longitudinal axis of the carotid sinus.

45. A baroreceptor activation device for activating a baroreceptor in a carotid sinus of a patient, the device comprising a plurality of electrodes each with a length and a width, the length being substantially greater than the width, the electrodes being adjacent and generally parallel to one another, the electrode assembly adapted to be placed on the carotid sinus such that the length of the electrodes runs generally parallel to a longitudinal axis of the carotid sinus.

46. A baroreceptor activation device for activating a baroreceptor in a carotid sinus of a patient, the device comprising a plurality of concentric electrodes, the electrode assembly adapted to be placed on the carotid sinus.

47. A method of disposing a baroreceptor activation device on a carotid sinus of a patient, the carotid sinus vascular wall, the method comprising the steps of:

providing a baroreceptor activation device having a base and a plurality of electrodes;

positioning the device proximate the carotid sinus; and

suturing the base to the vascular wall.